# CUMULATIVE (2020) WITH PROJECT WITH ALTERNATIVE 2 CONDITIONS

# (HCM METHODOLOGY)

Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project AM Alt with cross traffic

Scenario Report

| | |
|---|---|
| Scenario: | Cumulative (2020) + Project AM (Alt 2 w/cross) |
| Command: | Cumulative (2020) + Project AM (Alt 2 w/cross) |
| Volume: | Cumulative (2020) +Project (Alt 2 w/cross AM) |
| Geometry: | General Plan Build-Out |
| Impact Fee: | Default Impact Fee |
| Trip Generation: | None |
| Trip Distribution: | None |
| Paths: | Default Path |
| Routes: | Default Route |
| Configuration: | Existing |

Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project AM Alt with cross traffic

Impact Analysis Report
Level Of Service

| Intersection | Base LOS | Base Del/ Veh | Base V/ C | Future LOS | Future Del/ Veh | Future V/ C | Change in |
|---|---|---|---|---|---|---|---|
| # 5 Pacific Coast Hwy / 9th St | A | 2.9 | 0.597 | A | 2.9 | 0.597 | + 0.000 D/V |
| # 6 Pacific Coast Hwy / 6th St | C | 26.0 | 0.717 | C | 26.0 | 0.717 | + 0.000 D/V |
| # 7 Pacific Coast Hwy / Main St | A | 7.7 | 0.523 | A | 7.7 | 0.523 | + 0.000 D/V |
| # 8 Pacific Coast Hwy / 1st St | E | 64.6 | 1.009 | E | 64.6 | 1.009 | + 0.000 D/V |
| # 9 Pacific Coast Hwy / Huntington | A | 8.2 | 0.639 | A | 8.2 | 0.639 | + 0.000 D/V |
| # 16 Main St / Adams Ave | B | 16.2 | 0.454 | B | 16.2 | 0.454 | + 0.000 D/V |
| # 17 Main St / Walnut Ave | A | 7.4 | 0.092 | A | 7.4 | 0.092 | + 0.000 V/C |
| # 18 Main St / Olive Ave | A | 8.0 | 0.195 | A | 8.0 | 0.195 | + 0.000 V/C |
| # 19 Main St / 6th St | B | 15.8 | 0.263 | B | 15.8 | 0.263 | + 0.000 D/V |
| # 20 Lake St / 6th St | A | 8.3 | 0.116 | A | 8.3 | 0.116 | + 0.000 V/C |
| # 21 Lake St / Orange Ave | B | 12.8 | 0.570 | B | 12.8 | 0.570 | + 0.000 V/C |
| # 22 1st St / Orange Ave & Atlanta | C | 21.0 | 0.324 | C | 21.0 | 0.324 | + 0.000 D/V |
| # 24 Beach Blvd / Pacific View Ave | A | 9.4 | 0.301 | A | 9.4 | 0.301 | + 0.000 D/V |

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Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project AM Alt with cross traffic

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Pacific Coast Hwy / 9th St

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.597 |
| Loss Time (sec): | 5 (Y+R=4.0 sec) | Average Delay (sec/veh): | 2.9 |
| Optimal Cycle: | 30 | Level Of Service: | A |

| Street Name: | Pacific Coast Hwy | | | | | | 9th St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 2 | 0 1 | 1 0 | 2 | 0 0 | 0 0 | 0 | 0 0 0 | 1 0 | 0 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 1328 | 12 | 23 | 1834 | 0 | 0 | 0 | 0 | 47 | 0 | 23 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 1328 | 12 | 23 | 1834 | 0 | 0 | 0 | 0 | 47 | 0 | 23 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 1328 | 12 | 23 | 1834 | 0 | 0 | 0 | 0 | 47 | 0 | 23 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 1328 | 12 | 23 | 1834 | 0 | 0 | 0 | 0 | 47 | 0 | 23 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 1328 | 12 | 23 | 1834 | 0 | 0 | 0 | 0 | 47 | 0 | 23 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 1328 | 12 | 23 | 1834 | 0 | 0 | 0 | 0 | 47 | 0 | 23 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 2.00 | 1.00 | 1.00 | 2.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Final Sat.: | 0 | 3400 | 1700 | 1700 | 3400 | 0 | 0 | 0 | 0 | 1700 | 0 | 1700 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.39 | 0.01 | 0.01 | 0.54 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 | 0.01 |
| Crit Moves: | **** | | | | **** | | | | | **** | | |
| Green/Cycle: | 0.00 | 0.87 | 0.87 | 0.03 | 0.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.00 | 0.05 |
| Volume/Cap: | 0.00 | 0.45 | 0.01 | 0.45 | 0.60 | 0.00 | 0.00 | 0.00 | 0.00 | 0.60 | 0.00 | 0.29 |
| Delay/Veh: | 0.0 | 1.4 | 0.8 | 53.7 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 58.7 | 0.0 | 48.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 1.4 | 0.8 | 53.7 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 58.7 | 0.0 | 48.2 |
| LOS by Move: | A | A | A | D | A | A | A | A | A | E | A | D |
| HCM2kAvgQ: | 0 | 5 | 0 | 1 | 7 | 0 | 0 | 0 | 0 | 2 | 0 | 1 |

Note: Queue reported is the number of cars per lane.

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Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project AM Alt with cross traffic

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Pacific Coast Hwy / 6th St

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.717 |
| Loss Time (sec): | 31 (Y+R=4.0 sec) | Average Delay (sec/veh): | 26.0 |
| Optimal Cycle: | 98 | Level Of Service: | C |

| Street Name: | Pacific Coast Hwy | | | | | | 6th St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 2 | 1 0 | 1 0 | 2 | 1 0 | 0 0 | 1! 0 | 0 | 1 0 | 0 | 1 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 31 | 1162 | 74 | 141 | 1805 | 23 | 34 | 23 | 23 | 73 | 23 | 178 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 31 | 1162 | 74 | 141 | 1805 | 23 | 34 | 23 | 23 | 73 | 23 | 178 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 31 | 1162 | 74 | 141 | 1805 | 23 | 34 | 23 | 23 | 73 | 23 | 178 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 31 | 1162 | 74 | 141 | 1805 | 23 | 34 | 23 | 23 | 73 | 23 | 178 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 31 | 1162 | 74 | 141 | 1805 | 23 | 34 | 23 | 23 | 73 | 23 | 178 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 31 | 1162 | 74 | 141 | 1805 | 23 | 34 | 23 | 23 | 73 | 23 | 178 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.82 | 0.18 | 1.00 | 2.96 | 0.04 | 0.42 | 0.29 | 0.29 | 1.00 | 0.11 | 0.89 |
| Final Sat.: | 1700 | 4795 | 305 | 1700 | 5036 | 64 | 723 | 489 | 489 | 1700 | 195 | 1505 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.24 | 0.24 | 0.08 | 0.36 | 0.36 | 0.05 | 0.05 | 0.05 | 0.04 | 0.12 | 0.12 |
| Crit Moves: | **** | | | | **** | | | | | | **** | |
| Green/Cycle: | 0.03 | 0.39 | 0.39 | 0.13 | 0.50 | 0.50 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 |
| Volume/Cap: | 0.72 | 0.62 | 0.62 | 0.62 | 0.72 | 0.72 | 0.29 | 0.29 | 0.29 | 0.26 | 0.72 | 0.72 |
| Delay/Veh: | 92.6 | 25.1 | 25.1 | 46.0 | 20.5 | 20.5 | 37.2 | 37.2 | 37.2 | 36.9 | 48.2 | 48.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 92.6 | 25.1 | 25.1 | 46.0 | 20.5 | 20.5 | 37.2 | 37.2 | 37.2 | 36.9 | 48.2 | 48.2 |
| LOS by Move: | F | C | C | D | C | C | D | D | D | D | D | D |
| HCM2kAvgQ: | 2 | 11 | 11 | 5 | 16 | 16 | 2 | 2 | 2 | 2 | 7 | 7 |

Note: Queue reported is the number of cars per lane.

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Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project AM Alt with cross traffic

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Pacific Coast Hwy / Main St

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.523 |
| Loss Time (sec): | 31 (Y+R=4.0 sec) | Average Delay (sec/veh): | 7.7 |
| Optimal Cycle: | 77 | Level Of Service: | A |

| Street Name: | Pacific Coast Hwy | | | | | | Main St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 | 0 | 3 | 0 | 1 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 11 | 1141 | 0 | 0 | 1806 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 11 | 1141 | 0 | 0 | 1806 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 11 | 1141 | 0 | 0 | 1806 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 11 | 1141 | 0 | 0 | 1806 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 11 | 1141 | 0 | 0 | 1806 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 11 | 1141 | 0 | 0 | 1806 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 3.00 | 1.00 | 1.00 | 3.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Final Sat.: | 1700 | 5100 | 1700 | 1700 | 5100 | 0 | 0 | 0 | 0 | 1700 | 0 | 1700 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.22 | 0.00 | 0.00 | 0.35 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | | **** | | | | | | | |
| Green/Cycle: | 0.01 | 0.69 | 0.00 | 0.00 | 0.68 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Volume/Cap: | 0.52 | 0.32 | 0.00 | 0.00 | 0.52 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 70.9 | 6.2 | 0.0 | 0.0 | 8.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 70.9 | 6.2 | 0.0 | 0.0 | 8.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | E | A | A | A | A | A | A | A | A | A | A | A |
| HCM2kAvgQ: | 1 | 5 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Note: Queue reported is the number of cars per lane.

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Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project AM Alt with cross traffic

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Pacific Coast Hwy / 1st St

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.009 |
| Loss Time (sec): | 31 (Y+R=4.0 sec) | Average Delay (sec/veh): | 64.6 |
| Optimal Cycle: | 163 | Level Of Service: | E |

| Street Name: | Pacific Coast Hwy | | | | | | 1st St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Split Phase | | | Split Phase | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 2 | 1 0 | 1 0 | 2 | 1 0 | 1 1 | 0 | 0 1 | 1 1 | 0 | 0 2 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 45 | 998 | 168 | 121 | 1637 | 68 | 79 | 45 | 23 | 239 | 90 | 190 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 45 | 998 | 168 | 121 | 1637 | 68 | 79 | 45 | 23 | 239 | 90 | 190 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 45 | 998 | 168 | 121 | 1637 | 68 | 79 | 45 | 23 | 239 | 90 | 190 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 45 | 998 | 168 | 121 | 1637 | 68 | 79 | 45 | 23 | 239 | 90 | 190 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 45 | 998 | 168 | 121 | 1637 | 68 | 79 | 45 | 23 | 239 | 90 | 190 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 45 | 998 | 168 | 121 | 1637 | 68 | 79 | 45 | 23 | 239 | 90 | 190 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.57 | 0.43 | 1.00 | 2.88 | 0.12 | 1.27 | 0.73 | 1.00 | 1.45 | 0.55 | 2.00 |
| Final Sat.: | 1700 | 4365 | 735 | 1700 | 4897 | 203 | 2166 | 1234 | 1700 | 2470 | 930 | 3400 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.23 | 0.23 | 0.07 | 0.33 | 0.33 | 0.04 | 0.04 | 0.01 | 0.10 | 0.10 | 0.06 |
| Crit Moves: | | **** | | | **** | | **** | | | **** | | |
| Green/Cycle: | 0.23 | 0.23 | 0.23 | 0.33 | 0.33 | 0.33 | 0.04 | 0.04 | 0.04 | 0.10 | 0.10 | 0.10 |
| Volume/Cap: | 0.12 | 1.01 | 1.01 | 0.21 | 1.01 | 1.01 | 1.01 | 1.01 | 0.37 | 1.01 | 1.01 | 0.58 |
| Delay/Veh: | 30.9 | 67.4 | 67.4 | 24.3 | 57.5 | 57.5 | 131.8 | 132 | 50.9 | 97.3 | 97.3 | 46.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 30.9 | 67.4 | 67.4 | 24.3 | 57.5 | 57.5 | 131.8 | 132 | 50.9 | 97.3 | 97.3 | 46.0 |
| LOS by Move: | C | E | E | C | E | E | F | F | D | F | F | D |
| HCM2kAvgQ: | 1 | 18 | 18 | 3 | 25 | 25 | 5 | 5 | 1 | 9 | 9 | 4 |

Note: Queue reported is the number of cars per lane.

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Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project AM Alt with cross traffic

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 Pacific Coast Hwy / Huntington St

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.639 |
| Loss Time (sec): | 5 (Y+R=4.0 sec) | Average Delay (sec/veh): | 8.2 |
| Optimal Cycle: | 33 | Level Of Service: | A |

| Street Name: | Pacific Coast Hwy | | | | | | Huntington St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 2 0 | 1 | 1 0 | 2 0 | 1 | 0 1 | 0 1 | 0 | 1 1 | 0 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 56 | 1091 | 163 | 26 | 1776 | 11 | 11 | 23 | 45 | 109 | 68 | 23 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 56 | 1091 | 163 | 26 | 1776 | 11 | 11 | 23 | 45 | 109 | 68 | 23 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 56 | 1091 | 163 | 26 | 1776 | 11 | 11 | 23 | 45 | 109 | 68 | 23 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 56 | 1091 | 163 | 26 | 1776 | 11 | 11 | 23 | 45 | 109 | 68 | 23 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 56 | 1091 | 163 | 26 | 1776 | 11 | 11 | 23 | 45 | 109 | 68 | 23 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 56 | 1091 | 163 | 26 | 1776 | 11 | 11 | 23 | 45 | 109 | 68 | 23 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 0.32 | 0.68 | 1.00 | 1.23 | 0.77 | 1.00 |
| Final Sat.: | 1700 | 3400 | 1700 | 1700 | 3400 | 1700 | 550 | 1150 | 1700 | 2094 | 1306 | 1700 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.32 | 0.10 | 0.02 | 0.52 | 0.01 | 0.02 | 0.02 | 0.03 | 0.05 | 0.05 | 0.01 |
| Crit Moves: | **** | | | | **** | | | | | | **** | |
| Green/Cycle: | 0.05 | 0.83 | 0.83 | 0.04 | 0.82 | 0.82 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |
| Volume/Cap: | 0.64 | 0.39 | 0.12 | 0.39 | 0.64 | 0.01 | 0.25 | 0.25 | 0.33 | 0.64 | 0.64 | 0.17 |
| Delay/Veh: | 61.3 | 2.2 | 1.7 | 50.5 | 4.0 | 1.7 | 43.5 | 43.5 | 44.1 | 49.5 | 49.5 | 43.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 61.3 | 2.2 | 1.7 | 50.5 | 4.0 | 1.7 | 43.5 | 43.5 | 44.1 | 49.5 | 49.5 | 43.3 |
| LOS by Move: | E | A | A | D | A | A | D | D | D | D | D | D |
| HCM2kAvgQ: | 3 | 4 | 1 | 1 | 11 | 0 | 1 | 1 | 2 | 4 | 4 | 1 |

Note: Queue reported is the number of cars per lane.

Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project AM Alt with cross traffic

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #16 Main St / Adams Ave

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.454 |
| Loss Time (sec): | 5 (Y+R=4.0 sec) | Average Delay (sec/veh): | 16.2 |
| Optimal Cycle: | 23 | Level Of Service: | B |

| Street Name: | Main St | | | | | | Adams Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permitted | | | Permitted | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 | 0 1 | 1 0 | 1 | 0 1 | 0 1 | 0 | 0 1 | 0 1 | 0 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 23 | 432 | 119 | 56 | 425 | 34 | 11 | 259 | 11 | 87 | 214 | 34 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 23 | 432 | 119 | 56 | 425 | 34 | 11 | 259 | 11 | 87 | 214 | 34 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 23 | 432 | 119 | 56 | 425 | 34 | 11 | 259 | 11 | 87 | 214 | 34 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 23 | 432 | 119 | 56 | 425 | 34 | 11 | 259 | 11 | 87 | 214 | 34 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 23 | 432 | 119 | 56 | 425 | 34 | 11 | 259 | 11 | 87 | 214 | 34 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 23 | 432 | 119 | 56 | 425 | 34 | 11 | 259 | 11 | 87 | 214 | 34 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.04 | 0.96 | 1.00 | 0.29 | 0.71 | 1.00 |
| Final Sat.: | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 69 | 1631 | 1700 | 491 | 1209 | 1700 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.25 | 0.07 | 0.03 | 0.25 | 0.02 | 0.16 | 0.16 | 0.01 | 0.18 | 0.18 | 0.02 |
| Crit Moves: | | **** | | | | | | | | | **** | |
| Green/Cycle: | 0.56 | 0.56 | 0.56 | 0.56 | 0.56 | 0.56 | 0.39 | 0.39 | 0.39 | 0.39 | 0.39 | 0.39 |
| Volume/Cap: | 0.02 | 0.45 | 0.13 | 0.06 | 0.45 | 0.04 | 0.41 | 0.41 | 0.02 | 0.45 | 0.45 | 0.05 |
| Delay/Veh: | 9.8 | 13.3 | 10.5 | 10.0 | 13.2 | 9.9 | 22.5 | 22.5 | 18.7 | 23.1 | 23.1 | 19.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 9.8 | 13.3 | 10.5 | 10.0 | 13.2 | 9.9 | 22.5 | 22.5 | 18.7 | 23.1 | 23.1 | 19.0 |
| LOS by Move: | A | B | B | B | B | A | C | C | B | C | C | B |
| HCM2kAvgQ: | 0 | 8 | 2 | 1 | 8 | 0 | 6 | 6 | 0 | 7 | 7 | 1 |

Note: Queue reported is the number of cars per lane.

Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project AM Alt with cross traffic

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #17 Main St / Walnut Ave

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.092 |
| Loss Time (sec): | 0 (Y+R=4.0 sec) | Average Delay (sec/veh): | 7.4 |
| Optimal Cycle: | 0 | Level Of Service: | A |

| Street Name: | Main St | | | | | | Walnut Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1 0 | 0 | 0 0 | 1 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 77 | 0 | 0 | 83 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 77 | 0 | 0 | 83 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 77 | 0 | 0 | 83 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 77 | 0 | 0 | 83 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 77 | 0 | 0 | 83 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 77 | 0 | 0 | 83 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| Final Sat.: | 0 | 823 | 0 | 0 | 823 | 0 | 0 | 903 | 0 | 0 | 904 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | xxxx | 0.00 | xxxx | xxxx | 0.00 | xxxx | xxxx | 0.09 | xxxx | xxxx | 0.09 | xxxx |
| Crit Moves: | | **** | | | **** | | | **** | | | **** | |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.3 | 0.0 | 0.0 | 7.4 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.3 | 0.0 | 0.0 | 7.4 | 0.0 |
| LOS by Move: | * | * | * | * | * | * | * | A | * | * | A | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 7.3 | | | 7.4 | | |
| Delay Adj: | xxxxx | | | xxxxx | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | xxxxxx | | | xxxxxx | | | 7.3 | | | 7.4 | | |
| LOS by Appr: | * | | | * | | | A | | | A | | |
| AllWayAvgQ: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |

Note: Queue reported is the number of cars per lane.

Cumulative (2020) + ProjectWed Jan 7, 2009 09:47:28 Page 10-1

Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project AM Alt with cross traffic

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #18 Main St / Olive Ave

| | | | | | |
|---|---|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.195 | | |
| Loss Time (sec): | 0 (Y+R=4.0 sec) | Average Delay (sec/veh): | 8.0 | | |
| Optimal Cycle: | 0 | Level Of Service: | A | | |

| Street Name: | Main St | | | | | | Olive Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! | 0 0 | 0 0 | 1! | 0 0 | 0 0 | 1 | 0 0 | 0 0 | 1 | 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 158 | 0 | 0 | 173 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 158 | 0 | 0 | 173 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 158 | 0 | 0 | 173 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 158 | 0 | 0 | 173 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 158 | 0 | 0 | 173 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 158 | 0 | 0 | 173 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| Final Sat.: | 0 | 740 | 0 | 0 | 740 | 0 | 0 | 882 | 0 | 0 | 885 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | xxxx | 0.00 | xxxx | xxxx | 0.00 | xxxx | xxxx | 0.18 | xxxx | xxxx | 0.20 | xxxx |
| Crit Moves: | | **** | | | **** | | | **** | | | **** | |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.9 | 0.0 | 0.0 | 8.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.9 | 0.0 | 0.0 | 8.0 | 0.0 |
| LOS by Move: | * | * | * | * | * | * | * | A | * | * | A | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 7.9 | | | 8.0 | | |
| Delay Adj: | xxxxx | | | xxxxx | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | xxxxxx | | | xxxxxx | | | 7.9 | | | 8.0 | | |
| LOS by Appr: | * | | | * | | | A | | | A | | |
| AllWayAvgQ: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |

Note: Queue reported is the number of cars per lane.

Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project AM Alt with cross traffic

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

**********

Intersection #19 Main St / 6th St

**********

| | | | | |
|---|---|---|---|---|
| Cycle (sec): | 100 | | Critical Vol./Cap.(X): | 0.263 |
| Loss Time (sec): | 5 (Y+R=4.0 sec) | | Average Delay (sec/veh): | 15.8 |
| Optimal Cycle: | 17 | | Level Of Service: | B |

**********

| Street Name: | Main St | | | | | | 6th St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permitted | | | Permitted | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 0 1 | 0 | 1 0 | 1 0 | 1 | 1 0 | 1 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 12 | 93 | 12 | 11 | 116 | 164 | 144 | 59 | 23 | 59 | 65 | 11 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 12 | 93 | 12 | 11 | 116 | 164 | 144 | 59 | 23 | 59 | 65 | 11 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 12 | 93 | 12 | 11 | 116 | 164 | 144 | 59 | 23 | 59 | 65 | 11 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 12 | 93 | 12 | 11 | 116 | 164 | 144 | 59 | 23 | 59 | 65 | 11 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 12 | 93 | 12 | 11 | 116 | 164 | 144 | 59 | 23 | 59 | 65 | 11 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 12 | 93 | 12 | 11 | 116 | 164 | 144 | 59 | 23 | 59 | 65 | 11 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.89 | 0.11 | 1.00 | 0.41 | 0.59 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1700 | 1506 | 194 | 1700 | 704 | 996 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.06 | 0.06 | 0.01 | 0.16 | 0.16 | 0.08 | 0.03 | 0.01 | 0.03 | 0.04 | 0.01 |
| Crit Moves: | | | | | **** | | **** | | | | | |
| Green/Cycle: | 0.63 | 0.63 | 0.63 | 0.63 | 0.63 | 0.63 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 |
| Volume/Cap: | 0.01 | 0.10 | 0.10 | 0.01 | 0.26 | 0.26 | 0.26 | 0.11 | 0.04 | 0.11 | 0.12 | 0.02 |
| Delay/Veh: | 7.0 | 7.4 | 7.4 | 7.0 | 8.4 | 8.4 | 25.3 | 23.9 | 23.3 | 23.9 | 23.9 | 23.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 7.0 | 7.4 | 7.4 | 7.0 | 8.4 | 8.4 | 25.3 | 23.9 | 23.3 | 23.9 | 23.9 | 23.1 |
| LOS by Move: | A | A | A | A | A | A | C | C | C | C | C | C |
| HCM2kAvgQ: | 0 | 1 | 1 | 0 | 4 | 4 | 3 | 1 | 0 | 1 | 1 | 0 |

**********

Note: Queue reported is the number of cars per lane.

**********

Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project AM Alt with cross traffic

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #20 Lake St / 6th St

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.116 |
| Loss Time (sec): | 0 (Y+R=4.0 sec) | Average Delay (sec/veh): | 8.3 |
| Optimal Cycle: | 0 | Level Of Service: | A |

| Street Name: | Lake St | | | | | | 6th St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 1 0 | 1 | 0 1 | 0 0 | 1 | 0 1 | 0 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 2 | 56 | 0 | 54 | 42 | 66 | 47 | 26 | 3 | 0 | 79 | 17 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 2 | 56 | 0 | 54 | 42 | 66 | 47 | 26 | 3 | 0 | 79 | 17 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 2 | 56 | 0 | 54 | 42 | 66 | 47 | 26 | 3 | 0 | 79 | 17 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 2 | 56 | 0 | 54 | 42 | 66 | 47 | 26 | 3 | 0 | 79 | 17 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 2 | 56 | 0 | 54 | 42 | 66 | 47 | 26 | 3 | 0 | 79 | 17 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 2 | 56 | 0 | 54 | 42 | 66 | 47 | 26 | 3 | 0 | 79 | 17 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.64 | 0.36 | 1.00 | 0.00 | 1.00 | 1.00 |
| Final Sat.: | 622 | 681 | 0 | 623 | 682 | 787 | 411 | 227 | 778 | 0 | 679 | 781 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.08 | xxxx | 0.09 | 0.06 | 0.08 | 0.11 | 0.11 | 0.00 | xxxx | 0.12 | 0.02 |
| Crit Moves: | | **** | | **** | | | | **** | | | **** | |
| Delay/Veh: | 8.3 | 8.2 | 0.0 | 8.8 | 8.1 | 7.5 | 8.8 | 8.8 | 7.1 | 0.0 | 8.5 | 7.2 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.3 | 8.2 | 0.0 | 8.8 | 8.1 | 7.5 | 8.8 | 8.8 | 7.1 | 0.0 | 8.5 | 7.2 |
| LOS by Move: | A | A | * | A | A | A | A | A | A | * | A | A |
| ApproachDel: | | 8.2 | | | 8.1 | | | 8.8 | | | 8.2 | |
| Delay Adj: | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | |
| ApprAdjDel: | | 8.2 | | | 8.1 | | | 8.8 | | | 8.2 | |
| LOS by Appr: | | A | | | A | | | A | | | A | |
| AllWayAvgQ: | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 |

Note: Queue reported is the number of cars per lane.

Cumulative (2020) + ProjectWed Jan 7, 2009 09:47:28 Page 13-1

Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project AM Alt with cross traffic

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #21 Lake St / Orange Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.570
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 12.8
Optimal Cycle: 0 Level Of Service: B

| Street Name: | Lake St | | | | | | Orange Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! | 0 0 | 0 0 | 1! | 0 0 | 0 0 | 1! | 0 0 | 0 0 | 1! | 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 62 | 37 | 19 | 40 | 105 | 16 | 31 | 258 | 44 | 57 | 286 | 42 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 62 | 37 | 19 | 40 | 105 | 16 | 31 | 258 | 44 | 57 | 286 | 42 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 62 | 37 | 19 | 40 | 105 | 16 | 31 | 258 | 44 | 57 | 286 | 42 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 62 | 37 | 19 | 40 | 105 | 16 | 31 | 258 | 44 | 57 | 286 | 42 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 62 | 37 | 19 | 40 | 105 | 16 | 31 | 258 | 44 | 57 | 286 | 42 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 62 | 37 | 19 | 40 | 105 | 16 | 31 | 258 | 44 | 57 | 286 | 42 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.53 | 0.31 | 0.16 | 0.25 | 0.65 | 0.10 | 0.09 | 0.78 | 0.13 | 0.15 | 0.74 | 0.11 |
| Final Sat.: | 280 | 167 | 86 | 138 | 361 | 55 | 62 | 516 | 88 | 100 | 502 | 74 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.22 | 0.22 | 0.22 | 0.29 | 0.29 | 0.29 | 0.50 | 0.50 | 0.50 | 0.57 | 0.57 | 0.57 |
| Crit Moves: | | **** | | **** | | | | **** | | | **** | |
| Delay/Veh: | 10.4 | 10.4 | 10.4 | 10.9 | 10.9 | 10.9 | 12.9 | 12.9 | 12.9 | 14.2 | 14.2 | 14.2 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 10.4 | 10.4 | 10.4 | 10.9 | 10.9 | 10.9 | 12.9 | 12.9 | 12.9 | 14.2 | 14.2 | 14.2 |
| LOS by Move: | B | B | B | B | B | B | B | B | B | B | B | B |
| ApproachDel: | 10.4 | | | 10.9 | | | 12.9 | | | 14.2 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 10.4 | | | 10.9 | | | 12.9 | | | 14.2 | | |
| LOS by Appr: | B | | | B | | | B | | | B | | |
| AllWayAvgQ: | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.9 | 0.9 | 0.9 | 1.1 | 1.1 | 1.1 |

Note: Queue reported is the number of cars per lane.

Cumulative (2020) + ProjectWed Jan 7, 2009 09:47:28 Page 14-1

Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project AM Alt with cross traffic

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #22 1st St / Orange Ave & Atlanta Ave

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.324 |
| Loss Time (sec): | 5 (Y+R=4.0 sec) | Average Delay (sec/veh): | 21.0 |
| Optimal Cycle: | 19 | Level Of Service: | C |

| Street Name: | 1st St | | | | | | Orange Ave & Atlanta Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permitted | | | Permitted | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 1 | 0 | 0 1 | 0 1 | 0 | 0 0 | 1 0 | 1 | 1 0 | 1 0 | 0 | 1 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 72 | 0 | 119 | 11 | 11 | 0 | 0 | 199 | 70 | 269 | 228 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 72 | 0 | 119 | 11 | 11 | 0 | 0 | 199 | 70 | 269 | 228 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 72 | 0 | 119 | 11 | 11 | 0 | 0 | 199 | 70 | 269 | 228 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 72 | 0 | 119 | 11 | 11 | 0 | 0 | 199 | 70 | 269 | 228 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 72 | 0 | 119 | 11 | 11 | 0 | 0 | 199 | 70 | 269 | 228 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 72 | 0 | 119 | 11 | 11 | 0 | 0 | 199 | 70 | 269 | 228 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.00 | 1.00 | 0.50 | 0.50 | 0.00 | 1.00 | 1.48 | 0.52 | 1.00 | 1.00 | 0.00 |
| Final Sat.: | 1700 | 0 | 1700 | 850 | 850 | 0 | 1700 | 2515 | 885 | 1700 | 1700 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.00 | 0.07 | 0.01 | 0.01 | 0.00 | 0.00 | 0.08 | 0.08 | 0.16 | 0.13 | 0.00 |
| Crit Moves: | | | **** | | | | | **** | | **** | | |
| Green/Cycle: | 0.22 | 0.00 | 0.22 | 0.22 | 0.22 | 0.00 | 0.00 | 0.24 | 0.24 | 0.49 | 0.73 | 0.00 |
| Volume/Cap: | 0.20 | 0.00 | 0.32 | 0.06 | 0.06 | 0.00 | 0.00 | 0.32 | 0.32 | 0.32 | 0.18 | 0.00 |
| Delay/Veh: | 32.3 | 0.0 | 33.5 | 31.2 | 31.2 | 0.0 | 0.0 | 31.2 | 31.2 | 15.7 | 4.2 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 32.3 | 0.0 | 33.5 | 31.2 | 31.2 | 0.0 | 0.0 | 31.2 | 31.2 | 15.7 | 4.2 | 0.0 |
| LOS by Move: | C | A | C | C | C | A | A | C | C | B | A | A |
| HCM2kAvgQ: | 2 | 0 | 3 | 1 | 1 | 0 | 0 | 4 | 4 | 5 | 2 | 0 |

Note: Queue reported is the number of cars per lane.

Cumulative (2020) + ProjectWed Jan 7, 2009 09:47:28 Page 15-1

Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project AM Alt with cross traffic

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #24 Beach Blvd / Pacific View Ave

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.301 |
| Loss Time (sec): | 5 (Y+R=4.0 sec) | Average Delay (sec/veh): | 9.4 |
| Optimal Cycle: | 18 | Level Of Service: | A |

| Street Name: | Beach Blvd | | | | | | Pacific View Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 3 | 0 | 0 | 1 0 2 | 1 | 0 | 1 0 0 | 0 | 1 | 0 0 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 34 | 470 | 0 | 0 | 857 | 154 | 115 | 0 | 34 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 34 | 470 | 0 | 0 | 857 | 154 | 115 | 0 | 34 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 34 | 470 | 0 | 0 | 857 | 154 | 115 | 0 | 34 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 34 | 470 | 0 | 0 | 857 | 154 | 115 | 0 | 34 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 34 | 470 | 0 | 0 | 857 | 154 | 115 | 0 | 34 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 34 | 470 | 0 | 0 | 857 | 154 | 115 | 0 | 34 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 3.00 | 0.00 | 1.00 | 2.54 | 0.46 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 1700 | 5100 | 0 | 1700 | 4323 | 777 | 1700 | 0 | 1700 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.09 | 0.00 | 0.00 | 0.20 | 0.20 | 0.07 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | | **** | | **** | | | | | |
| Green/Cycle: | 0.07 | 0.73 | 0.00 | 0.00 | 0.66 | 0.66 | 0.22 | 0.00 | 0.22 | 0.00 | 0.00 | 0.00 |
| Volume/Cap: | 0.30 | 0.13 | 0.00 | 0.00 | 0.30 | 0.30 | 0.30 | 0.00 | 0.09 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 46.0 | 4.2 | 0.0 | 0.0 | 7.3 | 7.3 | 32.7 | 0.0 | 30.8 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 46.0 | 4.2 | 0.0 | 0.0 | 7.3 | 7.3 | 32.7 | 0.0 | 30.8 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | D | A | A | A | A | A | C | A | C | A | A | A |
| HCM2kAvgQ: | 1 | 1 | 0 | 0 | 4 | 4 | 3 | 0 | 1 | 0 | 0 | 0 |

Note: Queue reported is the number of cars per lane.

Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project PM Alt 2 with cross traffic

Scenario Report

| | |
|---|---|
| Scenario: | Cumulative (2020) + Project PM (Alt 2 w/cross) |
| Command: | Cumulative (2020) + Project PM (Alt 2 w/cross) |
| Volume: | Cumulative (2020) + Project (Alt 2 w/cross PM) |
| Geometry: | General Plan Build-Out |
| Impact Fee: | Default Impact Fee |
| Trip Generation: | None |
| Trip Distribution: | None |
| Paths: | Default Path |
| Routes: | Default Route |
| Configuration: | Existing |

Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project PM Alt 2 with cross traffic

Impact Analysis Report
Level Of Service

| Intersection | Base LOS | Base Del/ Veh | Base V/ C | Future LOS | Future Del/ Veh | Future V/ C | Change in |
|---|---|---|---|---|---|---|---|
| # 5 Pacific Coast Hwy / 9th St | A | 3.6 | 0.654 | A | 3.6 | 0.654 | + 0.000 D/V |
| # 6 Pacific Coast Hwy / 6th St | D | 45.1 | 0.991 | D | 45.1 | 0.991 | + 0.000 D/V |
| # 7 Pacific Coast Hwy / Main St | A | 8.9 | 0.478 | A | 8.9 | 0.478 | + 0.000 D/V |
| # 8 Pacific Coast Hwy / 1st St | F | 135.0 | 1.219 | F | 135.0 | 1.219 | + 0.000 D/V |
| # 9 Pacific Coast Hwy / Huntington | B | 10.0 | 0.697 | B | 10.0 | 0.697 | + 0.000 D/V |
| # 16 Main St / Adams Ave | C | 21.4 | 0.736 | C | 21.4 | 0.736 | + 0.000 D/V |
| # 17 Main St / Walnut Ave | A | 7.5 | 0.118 | A | 7.5 | 0.118 | + 0.000 V/C |
| # 18 Main St / Olive Ave | A | 8.3 | 0.264 | A | 8.3 | 0.264 | + 0.000 V/C |
| # 19 Main St / 6th St | B | 16.2 | 0.374 | B | 16.2 | 0.374 | + 0.000 D/V |
| # 20 Lake St / 6th St | B | 11.1 | 0.439 | B | 11.1 | 0.439 | + 0.000 V/C |
| # 21 Lake St / Orange Ave | F | 55.0 | 1.097 | F | 55.0 | 1.097 | + 0.000 V/C |
| # 22 1st St / Orange Ave & Atlanta | C | 23.2 | 0.467 | C | 23.2 | 0.467 | + 0.000 D/V |
| # 24 Beach Blvd / Pacific View Ave | B | 12.2 | 0.366 | B | 12.2 | 0.366 | + 0.000 D/V |

Cumulative (2020) + ProjectWed Jan 7, 2009 09:49:34 Page 3-1

Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project PM Alt 2 with cross traffic

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Pacific Coast Hwy / 9th St

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.654 |
| Loss Time (sec): | 5 (Y+R=4.0 sec) | Average Delay (sec/veh): | 3.6 |
| Optimal Cycle: | 34 | Level Of Service: | A |

| Street Name: | Pacific Coast Hwy | | | | | | 9th St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 2 | 0 1 | 1 0 | 2 | 0 0 | 0 0 | 0 | 0 0 0 | 1 0 | 0 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 1950 | 38 | 23 | 1476 | 0 | 0 | 0 | 0 | 59 | 0 | 23 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 1950 | 38 | 23 | 1476 | 0 | 0 | 0 | 0 | 59 | 0 | 23 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 1950 | 38 | 23 | 1476 | 0 | 0 | 0 | 0 | 59 | 0 | 23 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 1950 | 38 | 23 | 1476 | 0 | 0 | 0 | 0 | 59 | 0 | 23 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 1950 | 38 | 23 | 1476 | 0 | 0 | 0 | 0 | 59 | 0 | 23 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 1950 | 38 | 23 | 1476 | 0 | 0 | 0 | 0 | 59 | 0 | 23 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 2.00 | 1.00 | 1.00 | 2.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Final Sat.: | 0 | 3400 | 1700 | 1700 | 3400 | 0 | 0 | 0 | 0 | 1700 | 0 | 1700 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.57 | 0.02 | 0.01 | 0.43 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 | 0.01 |
| Crit Moves: | | **** | | **** | | | | | | **** | | |
| Green/Cycle: | 0.00 | 0.88 | 0.88 | 0.02 | 0.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.00 | 0.05 |
| Volume/Cap: | 0.00 | 0.65 | 0.03 | 0.65 | 0.48 | 0.00 | 0.00 | 0.00 | 0.00 | 0.65 | 0.00 | 0.26 |
| Delay/Veh: | 0.0 | 2.3 | 0.8 | 85.3 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 62.5 | 0.0 | 47.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 2.3 | 0.8 | 85.3 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 62.5 | 0.0 | 47.0 |
| LOS by Move: | A | A | A | F | A | A | A | A | A | E | A | D |
| HCM2kAvgQ: | 0 | 10 | 0 | 2 | 5 | 0 | 0 | 0 | 0 | 3 | 0 | 1 |

Note: Queue reported is the number of cars per lane.

Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project PM Alt 2 with cross traffic

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Pacific Coast Hwy / 6th St

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.991 |
| Loss Time (sec): | 31 (Y+R=4.0 sec) | Average Delay (sec/veh): | 45.1 |
| Optimal Cycle: | 156 | Level Of Service: | D |

| Street Name: | Pacific Coast Hwy | | | | | | 6th St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 2 1 | 0 | 1 0 | 2 1 | 0 | 0 0 | 1! 0 | 0 | 1 0 | 0 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 45 | 1726 | 131 | 216 | 1401 | 34 | 45 | 23 | 79 | 115 | 34 | 294 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 45 | 1726 | 131 | 216 | 1401 | 34 | 45 | 23 | 79 | 115 | 34 | 294 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 45 | 1726 | 131 | 216 | 1401 | 34 | 45 | 23 | 79 | 115 | 34 | 294 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 45 | 1726 | 131 | 216 | 1401 | 34 | 45 | 23 | 79 | 115 | 34 | 294 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 45 | 1726 | 131 | 216 | 1401 | 34 | 45 | 23 | 79 | 115 | 34 | 294 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 45 | 1726 | 131 | 216 | 1401 | 34 | 45 | 23 | 79 | 115 | 34 | 294 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.79 | 0.21 | 1.00 | 2.93 | 0.07 | 0.30 | 0.16 | 0.54 | 1.00 | 0.10 | 0.90 |
| Final Sat.: | 1700 | 4740 | 360 | 1700 | 4979 | 121 | 520 | 266 | 914 | 1700 | 176 | 1524 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.36 | 0.36 | 0.13 | 0.28 | 0.28 | 0.09 | 0.09 | 0.09 | 0.07 | 0.19 | 0.19 |
| Crit Moves: | | **** | | **** | | | | | | | **** | |
| Green/Cycle: | 0.04 | 0.37 | 0.37 | 0.13 | 0.45 | 0.45 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 |
| Volume/Cap: | 0.62 | 0.99 | 0.99 | 0.99 | 0.62 | 0.62 | 0.44 | 0.44 | 0.44 | 0.35 | 0.99 | 0.99 |
| Delay/Veh: | 62.6 | 50.2 | 50.2 | 101.9 | 21.4 | 21.4 | 36.5 | 36.5 | 36.5 | 35.4 | 87.2 | 87.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 62.6 | 50.2 | 50.2 | 101.9 | 21.4 | 21.4 | 36.5 | 36.5 | 36.5 | 35.4 | 87.2 | 87.2 |
| LOS by Move: | E | D | D | F | C | C | D | D | D | D | F | F |
| HCM2kAvgQ: | 2 | 26 | 26 | 11 | 12 | 12 | 4 | 4 | 4 | 3 | 15 | 15 |

Note: Queue reported is the number of cars per lane.

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Cumulative (2020) + ProjectWed Jan 7, 2009 09:49:34                    Page 5-1
-------------------------------------------------------------------------------
                  Huntington Beach Traffic Impact Analysis
           Cumulative (2020) + Project PM Alt 2 with cross traffic
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #7 Pacific Coast Hwy / Main St
*******************************************************************************
Cycle (sec):         100                 Critical Vol./Cap.(X):         0.478
Loss Time (sec):      31 (Y+R=4.0 sec)   Average Delay (sec/veh):         8.9
Optimal Cycle:        74                 Level Of Service:                A
*******************************************************************************
Street Name:         Pacific Coast Hwy                  Main St
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected        Protected        Protected
Rights:           Include          Include          Include          Include
Min. Green:     0    0    0     0    0    0     0    0    0     0    0    0
Lanes:        1  0  3  0  1    1  0  3  0  0    0  0  0  0  0    1  0  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      45 1681     0     0 1354     0     0    0     0     0    0     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   45 1681     0     0 1354     0     0    0     0     0    0     0
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   45 1681     0     0 1354     0     0    0     0     0    0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:    45 1681     0     0 1354     0     0    0     0     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   45 1681     0     0 1354     0     0    0     0     0    0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   45 1681     0     0 1354     0     0    0     0     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1700 1700  1700  1700 1700  1700  1700 1700  1700  1700 1700  1700
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       1.00 3.00  1.00  1.00 3.00  0.00  0.00 0.00  0.00  1.00 0.00  1.00
Final Sat.:  1700 5100  1700  1700 5100     0     0    0     0  1700    0  1700
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.03 0.33  0.00  0.00 0.27  0.00  0.00 0.00  0.00  0.00 0.00  0.00
Crit Moves:       ****        ****
Green/Cycle: 0.06 0.69  0.00  0.00 0.63  0.00  0.00 0.00  0.00  0.00 0.00  0.00
Volume/Cap:  0.42 0.48  0.00  0.00 0.42  0.00  0.00 0.00  0.00  0.00 0.00  0.00
Delay/Veh:   47.8  7.3   0.0   0.0  9.5   0.0   0.0  0.0   0.0   0.0  0.0   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  47.8  7.3   0.0   0.0  9.5   0.0   0.0  0.0   0.0   0.0  0.0   0.0
LOS by Move:    D    A     A     A    A     A     A    A     A     A    A     A
HCM2kAvgQ:      2    8     0     0    7     0     0    0     0     0    0     0
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************
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Cumulative (2020) + ProjectWed Jan 7, 2009 09:49:34 Page 6-1

Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project PM Alt 2 with cross traffic

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Pacific Coast Hwy / 1st St

| | | | | | |
|---|---|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.219 | | |
| Loss Time (sec): | 31 (Y+R=4.0 sec) | Average Delay (sec/veh): | 135.0 | | |
| Optimal Cycle: | 180 | Level Of Service: | F | | |

| Street Name: | Pacific Coast Hwy | | | | | | 1st St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Split Phase | | | Split Phase | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 2 | 1 0 | 1 0 | 2 | 1 0 | 1 1 | 0 | 0 1 | 1 1 | 0 | 0 2 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 56 | 1737 | 366 | 226 | 1252 | 23 | 79 | 45 | 68 | 437 | 34 | 176 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 56 | 1737 | 366 | 226 | 1252 | 23 | 79 | 45 | 68 | 437 | 34 | 176 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 56 | 1737 | 366 | 226 | 1252 | 23 | 79 | 45 | 68 | 437 | 34 | 176 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 56 | 1737 | 366 | 226 | 1252 | 23 | 79 | 45 | 68 | 437 | 34 | 176 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 56 | 1737 | 366 | 226 | 1252 | 23 | 79 | 45 | 68 | 437 | 34 | 176 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 56 | 1737 | 366 | 226 | 1252 | 23 | 79 | 45 | 68 | 437 | 34 | 176 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.48 | 0.52 | 1.00 | 2.95 | 0.05 | 1.27 | 0.73 | 1.00 | 1.86 | 0.14 | 2.00 |
| Final Sat.: | 1700 | 4212 | 888 | 1700 | 5008 | 92 | 2166 | 1234 | 1700 | 3155 | 245 | 3400 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.41 | 0.41 | 0.13 | 0.25 | 0.25 | 0.04 | 0.04 | 0.04 | 0.14 | 0.14 | 0.05 |
| Crit Moves: | | **** | | | **** | | | | **** | | **** | |
| Green/Cycle: | 0.34 | 0.34 | 0.34 | 0.21 | 0.21 | 0.21 | 0.03 | 0.03 | 0.03 | 0.11 | 0.11 | 0.11 |
| Volume/Cap: | 0.10 | 1.22 | 1.22 | 0.65 | 1.22 | 1.22 | 1.11 | 1.11 | 1.22 | 1.22 | 1.22 | 0.46 |
| Delay/Veh: | 22.7 | 137 | 137.0 | 40.7 | 147 | 146.9 | 166.6 | 167 | 239.4 | 164.0 | 164 | 42.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 22.7 | 137 | 137.0 | 40.7 | 147 | 146.9 | 166.6 | 167 | 239.4 | 164.0 | 164 | 42.3 |
| LOS by Move: | C | F | F | D | F | F | F | F | F | F | F | D |
| HCM2kAvgQ: | 1 | 40 | 40 | 7 | 25 | 25 | 5 | 5 | 6 | 15 | 15 | 3 |

Note: Queue reported is the number of cars per lane.

Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project PM Alt 2 with cross traffic

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 Pacific Coast Hwy / Huntington St

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.697 |
| Loss Time (sec): | 5 (Y+R=4.0 sec) | Average Delay (sec/veh): | 10.0 |
| Optimal Cycle: | 39 | Level Of Service: | B |

| Street Name: | Pacific Coast Hwy | | | | | | Huntington St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 2 0 | 1 | 1 0 | 2 0 | 1 | 0 1 | 0 1 | 0 | 1 1 | 0 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 45 | 1949 | 213 | 56 | 1424 | 11 | 45 | 56 | 90 | 156 | 34 | 34 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 45 | 1949 | 213 | 56 | 1424 | 11 | 45 | 56 | 90 | 156 | 34 | 34 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 45 | 1949 | 213 | 56 | 1424 | 11 | 45 | 56 | 90 | 156 | 34 | 34 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 45 | 1949 | 213 | 56 | 1424 | 11 | 45 | 56 | 90 | 156 | 34 | 34 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 45 | 1949 | 213 | 56 | 1424 | 11 | 45 | 56 | 90 | 156 | 34 | 34 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 45 | 1949 | 213 | 56 | 1424 | 11 | 45 | 56 | 90 | 156 | 34 | 34 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 0.47 | 0.59 | 0.94 | 1.64 | 0.36 | 1.00 |
| Final Sat.: | 1700 | 3400 | 1700 | 1700 | 3400 | 1700 | 801 | 997 | 1602 | 2792 | 608 | 1700 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.57 | 0.13 | 0.03 | 0.42 | 0.01 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.02 |
| Crit Moves: | | **** | | **** | | | | **** | | | | |
| Green/Cycle: | 0.05 | 0.82 | 0.82 | 0.05 | 0.82 | 0.82 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |
| Volume/Cap: | 0.51 | 0.70 | 0.15 | 0.70 | 0.51 | 0.01 | 0.70 | 0.70 | 0.70 | 0.69 | 0.69 | 0.25 |
| Delay/Veh: | 51.2 | 4.5 | 1.9 | 70.5 | 3.0 | 1.7 | 52.5 | 52.5 | 52.5 | 52.2 | 52.2 | 44.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 51.2 | 4.5 | 1.9 | 70.5 | 3.0 | 1.7 | 52.5 | 52.5 | 52.5 | 52.2 | 52.2 | 44.1 |
| LOS by Move: | D | A | A | E | A | A | D | D | D | D | D | D |
| HCM2kAvgQ: | 2 | 13 | 1 | 3 | 7 | 0 | 4 | 4 | 4 | 4 | 4 | 1 |

Note: Queue reported is the number of cars per lane.

Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project PM Alt 2 with cross traffic

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #16 Main St / Adams Ave

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.736 |
| Loss Time (sec): | 5 (Y+R=4.0 sec) | Average Delay (sec/veh): | 21.4 |
| Optimal Cycle: | 43 | Level Of Service: | C |

| Street Name: | Main St | | | | | | Adams Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permitted | | | Permitted | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 | 0 1 | 1 0 | 1 | 0 1 | 0 1 | 0 | 0 1 | 0 1 | 0 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 11 | 582 | 129 | 82 | 641 | 11 | 0 | 180 | 11 | 231 | 316 | 68 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 11 | 582 | 129 | 82 | 641 | 11 | 0 | 180 | 11 | 231 | 316 | 68 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 11 | 582 | 129 | 82 | 641 | 11 | 0 | 180 | 11 | 231 | 316 | 68 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 11 | 582 | 129 | 82 | 641 | 11 | 0 | 180 | 11 | 231 | 316 | 68 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 11 | 582 | 129 | 82 | 641 | 11 | 0 | 180 | 11 | 231 | 316 | 68 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 11 | 582 | 129 | 82 | 641 | 11 | 0 | 180 | 11 | 231 | 316 | 68 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.42 | 0.58 | 1.00 |
| Final Sat.: | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 0 | 1700 | 1700 | 718 | 982 | 1700 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.34 | 0.08 | 0.05 | 0.38 | 0.01 | 0.00 | 0.11 | 0.01 | 0.32 | 0.32 | 0.04 |
| Crit Moves: | | | | | **** | | | | | | **** | |
| Green/Cycle: | 0.51 | 0.51 | 0.51 | 0.51 | 0.51 | 0.51 | 0.00 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 |
| Volume/Cap: | 0.01 | 0.67 | 0.15 | 0.09 | 0.74 | 0.01 | 0.00 | 0.24 | 0.01 | 0.74 | 0.74 | 0.09 |
| Delay/Veh: | 12.0 | 20.1 | 12.9 | 12.5 | 22.4 | 12.0 | 0.0 | 17.9 | 15.9 | 27.2 | 27.2 | 16.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 12.0 | 20.1 | 12.9 | 12.5 | 22.4 | 12.0 | 0.0 | 17.9 | 15.9 | 27.2 | 27.2 | 16.5 |
| LOS by Move: | B | C | B | B | C | B | A | B | B | C | C | B |
| HCM2kAvgQ: | 0 | 14 | 2 | 1 | 16 | 0 | 0 | 3 | 0 | 15 | 15 | 1 |

Note: Queue reported is the number of cars per lane.

Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project PM Alt 2 with cross traffic

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #17 Main St / Walnut Ave

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.118 |
| Loss Time (sec): | 0 (Y+R=4.0 sec) | Average Delay (sec/veh): | 7.5 |
| Optimal Cycle: | 0 | Level Of Service: | A |

| Street Name: | Main St | | | | | | Walnut Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! | 0 0 | 0 0 | 1! | 0 0 | 0 0 | 1 | 0 0 | 0 0 | 1 | 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 94 | 0 | 0 | 106 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 94 | 0 | 0 | 106 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 94 | 0 | 0 | 106 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 94 | 0 | 0 | 106 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 94 | 0 | 0 | 106 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 94 | 0 | 0 | 106 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| Final Sat.: | 0 | 801 | 0 | 0 | 801 | 0 | 0 | 898 | 0 | 0 | 901 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | xxxx | 0.00 | xxxx | xxxx | 0.00 | xxxx | xxxx | 0.10 | xxxx | xxxx | 0.12 | xxxx |
| Crit Moves: | | **** | | | **** | | | **** | | | **** | |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.5 | 0.0 | 0.0 | 7.5 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.5 | 0.0 | 0.0 | 7.5 | 0.0 |
| LOS by Move: | * | * | * | * | * | * | * | A | * | * | A | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 7.5 | | | 7.5 | | |
| Delay Adj: | xxxxx | | | xxxxx | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | xxxxxx | | | xxxxxx | | | 7.5 | | | 7.5 | | |
| LOS by Appr: | * | | | * | | | A | | | A | | |
| AllWayAvgQ: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |

Note: Queue reported is the number of cars per lane.

```
Cumulative (2020) + ProjectWed Jan 7, 2009 09:49:35                    Page 10-1
-------------------------------------------------------------------------------
                  Huntington Beach Traffic Impact Analysis
           Cumulative (2020) + Project PM Alt 2 with cross traffic
-------------------------------------------------------------------------------
                     Level Of Service Computation Report
            2000 HCM 4-Way Stop Method (Future Volume Alternative)
*******************************************************************************
Intersection #18 Main St / Olive Ave
*******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.264
Loss Time (sec):       0 (Y+R=4.0 sec)  Average Delay (sec/veh):         8.3
Optimal Cycle:         0                Level Of Service:                 A
*******************************************************************************
Street Name:             Main St                        Olive Ave
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1  0  0    0  0  1  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0     0    0     0     0  144     0     0  235     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0     0     0    0     0     0  144     0     0  235     0
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0    0     0     0    0     0     0  144     0     0  235     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     0    0     0     0    0     0     0  144     0     0  235     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0     0    0     0     0  144     0     0  235     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:    0    0     0     0    0     0     0  144     0     0  235     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.00 1.00  0.00  0.00 1.00  0.00  0.00 1.00  0.00  0.00 1.00  0.00
Final Sat.:     0  718     0     0  718     0     0  869     0     0  889     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     xxxx 0.00  xxxx  xxxx 0.00  xxxx  xxxx 0.17  xxxx  xxxx 0.26  xxxx
Crit Moves:       ****             ****             ****             ****
Delay/Veh:    0.0  0.0   0.0   0.0  0.0   0.0   0.0  7.9   0.0   0.0  8.5   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0  0.0   0.0   0.0  0.0   0.0   0.0  7.9   0.0   0.0  8.5   0.0
LOS by Move:    *    *     *     *    *     *     *    A     *     *    A     *
ApproachDel:    xxxxxx           xxxxxx             7.9              8.5
Delay Adj:       xxxxx            xxxxx             1.00             1.00
ApprAdjDel:     xxxxxx           xxxxxx             7.9              8.5
LOS by Appr:         *                *                A                A
AllWayAvgQ:   0.0  0.0   0.0   0.0  0.0   0.0   0.2  0.2   0.2   0.4  0.4   0.4
*******************************************************************************
Note: Queue reported is the number of cars per lane.

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Cumulative (2020) + ProjectWed Jan 7, 2009 09:49:35 Page 11-1

Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project PM Alt 2 with cross traffic

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #19 Main St / 6th St

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.374 |
| Loss Time (sec): | 5 (Y+R=4.0 sec) | Average Delay (sec/veh): | 16.2 |
| Optimal Cycle: | 20 | Level Of Service: | B |

| Street Name: | Main St | | | | | | 6th St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permitted | | | Permitted | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 | 1 0 | 1 0 | 0 | 1 0 | 1 0 | 1 | 0 1 | 1 0 | 1 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 15 | 135 | 14 | 34 | 179 | 196 | 229 | 99 | 31 | 30 | 92 | 34 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 15 | 135 | 14 | 34 | 179 | 196 | 229 | 99 | 31 | 30 | 92 | 34 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 15 | 135 | 14 | 34 | 179 | 196 | 229 | 99 | 31 | 30 | 92 | 34 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 15 | 135 | 14 | 34 | 179 | 196 | 229 | 99 | 31 | 30 | 92 | 34 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 15 | 135 | 14 | 34 | 179 | 196 | 229 | 99 | 31 | 30 | 92 | 34 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 15 | 135 | 14 | 34 | 179 | 196 | 229 | 99 | 31 | 30 | 92 | 34 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.91 | 0.09 | 1.00 | 0.48 | 0.52 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1700 | 1540 | 160 | 1700 | 811 | 889 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.09 | 0.09 | 0.02 | 0.22 | 0.22 | 0.13 | 0.06 | 0.02 | 0.02 | 0.05 | 0.02 |
| Crit Moves: | | | | | **** | | **** | | | | | |
| Green/Cycle: | 0.59 | 0.59 | 0.59 | 0.59 | 0.59 | 0.59 | 0.36 | 0.36 | 0.36 | 0.36 | 0.36 | 0.36 |
| Volume/Cap: | 0.01 | 0.15 | 0.15 | 0.03 | 0.37 | 0.37 | 0.37 | 0.16 | 0.05 | 0.05 | 0.15 | 0.06 |
| Delay/Veh: | 8.5 | 9.3 | 9.3 | 8.6 | 11.0 | 11.0 | 24.0 | 21.9 | 20.9 | 20.9 | 21.8 | 20.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 8.5 | 9.3 | 9.3 | 8.6 | 11.0 | 11.0 | 24.0 | 21.9 | 20.9 | 20.9 | 21.8 | 20.9 |
| LOS by Move: | A | A | A | A | B | B | C | C | C | C | C | C |
| HCM2kAvgQ: | 0 | 2 | 2 | 0 | 6 | 6 | 5 | 2 | 1 | 1 | 2 | 1 |

Note: Queue reported is the number of cars per lane.

Cumulative (2020) + ProjectWed Jan 7, 2009 09:49:35 Page 12-1

Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project PM Alt 2 with cross traffic

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #20 Lake St / 6th St

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.439 |
| Loss Time (sec): | 0 (Y+R=4.0 sec) | Average Delay (sec/veh): | 11.1 |
| Optimal Cycle: | 0 | Level Of Service: | B |

| Street Name: | Lake St | | | | | | 6th St | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 | 1 0 | 1 0 | 1 | 0 1 | 0 1 | 0 | 0 1 | 0 1 | 0 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 19 | 241 | 35 | 34 | 210 | 65 | 41 | 68 | 30 | 11 | 79 | 23 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 19 | 241 | 35 | 34 | 210 | 65 | 41 | 68 | 30 | 11 | 79 | 23 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 19 | 241 | 35 | 34 | 210 | 65 | 41 | 68 | 30 | 11 | 79 | 23 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 19 | 241 | 35 | 34 | 210 | 65 | 41 | 68 | 30 | 11 | 79 | 23 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 19 | 241 | 35 | 34 | 210 | 65 | 41 | 68 | 30 | 11 | 79 | 23 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 19 | 241 | 35 | 34 | 210 | 65 | 41 | 68 | 30 | 11 | 79 | 23 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.87 | 0.13 | 1.00 | 1.00 | 1.00 | 0.38 | 0.62 | 1.00 | 0.12 | 0.88 | 1.00 |
| Final Sat.: | 565 | 548 | 80 | 533 | 581 | 650 | 198 | 328 | 601 | 65 | 464 | 593 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.44 | 0.44 | 0.06 | 0.36 | 0.10 | 0.21 | 0.21 | 0.05 | 0.17 | 0.17 | 0.04 |
| Crit Moves: | | **** | | | **** | | | **** | | | **** | |
| Delay/Veh: | 9.0 | 12.3 | 12.3 | 9.6 | 11.9 | 8.5 | 10.6 | 10.6 | 8.5 | 10.2 | 10.2 | 8.5 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 9.0 | 12.3 | 12.3 | 9.6 | 11.9 | 8.5 | 10.6 | 10.6 | 8.5 | 10.2 | 10.2 | 8.5 |
| LOS by Move: | A | B | B | A | B | A | B | B | A | B | B | A |
| ApproachDel: | | 12.1 | | | 10.9 | | | 10.2 | | | 9.9 | |
| Delay Adj: | | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | |
| ApprAdjDel: | | 12.1 | | | 10.9 | | | 10.2 | | | 9.9 | |
| LOS by Appr: | | B | | | B | | | B | | | A | |
| AllWayAvgQ: | 0.0 | 0.7 | 0.7 | 0.1 | 0.5 | 0.1 | 0.2 | 0.2 | 0.0 | 0.2 | 0.2 | 0.0 |

Note: Queue reported is the number of cars per lane.

Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project PM Alt 2 with cross traffic

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #21 Lake St / Orange Ave

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.097 |
| Loss Time (sec): | 0 (Y+R=4.0 sec) | Average Delay (sec/veh): | 55.0 |
| Optimal Cycle: | 0 | Level Of Service: | F |

| Street Name: | Lake St | | | | | | Orange Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Stop Sign | | | Stop Sign | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 80 | 146 | 25 | 105 | 91 | 56 | 58 | 331 | 67 | 37 | 426 | 114 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 80 | 146 | 25 | 105 | 91 | 56 | 58 | 331 | 67 | 37 | 426 | 114 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 80 | 146 | 25 | 105 | 91 | 56 | 58 | 331 | 67 | 37 | 426 | 114 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 80 | 146 | 25 | 105 | 91 | 56 | 58 | 331 | 67 | 37 | 426 | 114 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 80 | 146 | 25 | 105 | 91 | 56 | 58 | 331 | 67 | 37 | 426 | 114 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 80 | 146 | 25 | 105 | 91 | 56 | 58 | 331 | 67 | 37 | 426 | 114 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.32 | 0.58 | 0.10 | 0.42 | 0.36 | 0.22 | 0.13 | 0.72 | 0.15 | 0.06 | 0.74 | 0.20 |
| Final Sat.: | 138 | 253 | 43 | 182 | 158 | 97 | 64 | 367 | 74 | 34 | 388 | 104 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 | 0.90 | 0.90 | 0.90 | 1.10 | 1.10 | 1.10 |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |
| Delay/Veh: | 20.2 | 20.2 | 20.2 | 20.1 | 20.1 | 20.1 | 44.2 | 44.2 | 44.2 | 93.9 | 93.9 | 93.9 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 20.2 | 20.2 | 20.2 | 20.1 | 20.1 | 20.1 | 44.2 | 44.2 | 44.2 | 93.9 | 93.9 | 93.9 |
| LOS by Move: | C | C | C | C | C | C | E | E | E | F | F | F |
| ApproachDel: | 20.2 | | | 20.1 | | | 44.2 | | | 93.9 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 20.2 | | | 20.1 | | | 44.2 | | | 93.9 | | |
| LOS by Appr: | C | | | C | | | E | | | F | | |
| AllWayAvgQ: | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 4.8 | 4.8 | 4.8 | 12.3 | 12.3 | 12.3 |

Note: Queue reported is the number of cars per lane.

```
Cumulative (2020) + ProjectWed Jan 7, 2009 09:49:35                    Page 14-1
-------------------------------------------------------------------------------
                  Huntington Beach Traffic Impact Analysis
           Cumulative (2020) + Project PM Alt 2 with cross traffic
-------------------------------------------------------------------------------
                       Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
*******************************************************************************
Intersection #22 1st St / Orange Ave & Atlanta Ave
*******************************************************************************
Cycle (sec):         100                 Critical Vol./Cap.(X):         0.467
Loss Time (sec):       5 (Y+R=4.0 sec)   Average Delay (sec/veh):        23.2
Optimal Cycle:        23                 Level Of Service:                 C
*******************************************************************************
Street Name:                 1st St                    Orange Ave & Atlanta Ave
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:          Permitted        Permitted        Protected        Protected
Rights:            Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  1  0  0  1    1  0  0  0  0    1  0  1  1  0    1  0  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     158   11   261    11    0     0     0  316   219   225  323    11
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  158   11   261    11    0     0     0  316   219   225  323    11
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  158   11   261    11    0     0     0  316   219   225  323    11
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:   158   11   261    11    0     0     0  316   219   225  323    11
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  158   11   261    11    0     0     0  316   219   225  323    11
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  158   11   261    11    0     0     0  316   219   225  323    11
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1700 1700  1700  1700 1700  1700  1700 1700  1700  1700 1700  1700
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.93 0.07  1.00  1.00 0.00  0.00  1.00 1.18  0.82  1.00 0.97  0.03
Final Sat.:  1589  111  1700  1700    0     0  1700 2008  1392  1700 1644    56
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.10 0.10  0.15  0.01 0.00  0.00  0.00 0.16  0.16  0.13 0.20  0.20
Crit Moves:             ****                          ****        ****
Green/Cycle: 0.33 0.33  0.33  0.33 0.00  0.00  0.00 0.34  0.34  0.28 0.62  0.62
Volume/Cap:  0.30 0.30  0.47  0.02 0.00  0.00  0.00 0.47  0.47  0.47 0.32  0.32
Delay/Veh:   25.3 25.3  27.2  22.7  0.0   0.0   0.0 26.4  26.4  30.3  9.1   9.1
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  25.3 25.3  27.2  22.7  0.0   0.0   0.0 26.4  26.4  30.3  9.1   9.1
LOS by Move:    C    C     C     C    A     A     A    C     C     C    A     A
HCM2kAvgQ:      4    4     7     0    0     0     0    7     7     6    5     5
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************
```

Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project PM Alt 2 with cross traffic

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #24 Beach Blvd / Pacific View Ave

| | | | | |
|---|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.366 |
| Loss Time (sec): | 5 (Y+R=4.0 sec) | Average Delay (sec/veh): | 12.2 |
| Optimal Cycle: | 20 | Level Of Service: | B |

| Street Name: | Beach Blvd | | | | | | Pacific View Ave | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 3 0 | 0 | 1 0 | 2 1 | 0 | 1 0 | 0 0 | 1 | 0 0 | 0 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 45 | 1201 | 0 | 0 | 675 | 161 | 190 | 0 | 45 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 45 | 1201 | 0 | 0 | 675 | 161 | 190 | 0 | 45 | 0 | 0 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 45 | 1201 | 0 | 0 | 675 | 161 | 190 | 0 | 45 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 45 | 1201 | 0 | 0 | 675 | 161 | 190 | 0 | 45 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 45 | 1201 | 0 | 0 | 675 | 161 | 190 | 0 | 45 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 45 | 1201 | 0 | 0 | 675 | 161 | 190 | 0 | 45 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 3.00 | 0.00 | 1.00 | 2.42 | 0.58 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 1700 | 5100 | 0 | 1700 | 4118 | 982 | 1700 | 0 | 1700 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.24 | 0.00 | 0.00 | 0.16 | 0.16 | 0.11 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | **** | | | **** | | | | | |
| Green/Cycle: | 0.09 | 0.64 | 0.00 | 0.00 | 0.55 | 0.55 | 0.31 | 0.00 | 0.31 | 0.00 | 0.00 | 0.00 |
| Volume/Cap: | 0.30 | 0.37 | 0.00 | 0.00 | 0.30 | 0.30 | 0.37 | 0.00 | 0.09 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 43.7 | 8.3 | 0.0 | 0.0 | 11.9 | 11.9 | 27.6 | 0.0 | 24.8 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 43.7 | 8.3 | 0.0 | 0.0 | 11.9 | 11.9 | 27.6 | 0.0 | 24.8 | 0.0 | 0.0 | 0.0 |
| LOS by Move: | D | A | A | A | B | B | C | A | C | A | A | A |
| HCM2kAvgQ: | 2 | 6 | 0 | 0 | 5 | 5 | 5 | 0 | 1 | 0 | 0 | 0 |

Note: Queue reported is the number of cars per lane.

# CUMULATIVE (2020) WITH PROJECT WITH ALTERNATIVE 2 CONDITIONS

# (ICU METHODOLOGY)

Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project AM Alt with cross traffic

Scenario Report

| | |
|---|---|
| Scenario: | Cumulative (2020) + Project AM (Alt 2 w/cross) |
| Command: | Cumulative (2020) + Project AM (Alt 2 w/cross) |
| Volume: | Cumulative (2020) +Project (Alt 2 w/cross AM) |
| Geometry: | General Plan Build-Out |
| Impact Fee: | Default Impact Fee |
| Trip Generation: | None |
| Trip Distribution: | None |
| Paths: | Default Path |
| Routes: | Default Route |
| Configuration: | Existing |

Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project AM Alt with cross traffic

Impact Analysis Report
Level Of Service

| Intersection | Base LOS | Base Del/ Veh | Base V/ C | Future LOS | Future Del/ Veh | Future V/ C | Change in V/C |
|---|---|---|---|---|---|---|---|
| # 5 Pacific Coast Hwy / 9th St | B | xxxxx | 0.617 | B | xxxxx | 0.617 | + 0.000 |
| # 6 Pacific Coast Hwy / 6th St | D | xxxxx | 0.825 | D | xxxxx | 0.825 | + 0.000 |
| # 7 Pacific Coast Hwy / Main St | B | xxxxx | 0.671 | B | xxxxx | 0.671 | + 0.000 |
| # 8 Pacific Coast Hwy / 1st St | F | xxxxx | 1.006 | F | xxxxx | 1.006 | + 0.000 |
| # 9 Pacific Coast Hwy / Huntington | B | xxxxx | 0.684 | B | xxxxx | 0.684 | + 0.000 |
| # 16 Main St / Adams Ave | A | xxxxx | 0.547 | A | xxxxx | 0.547 | + 0.000 |
| # 19 Main St / 6th St | A | xxxxx | 0.345 | A | xxxxx | 0.345 | + 0.000 |
| # 22 1st St / Orange Ave & Atlanta | A | xxxxx | 0.364 | A | xxxxx | 0.364 | + 0.000 |
| # 24 Beach Blvd / Pacific View Ave | A | xxxxx | 0.336 | A | xxxxx | 0.336 | + 0.000 |

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Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project PM Alt 2 with cross traffic

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Scenario Report

| | |
|---|---|
| Scenario: | Cumulative (2020) + Project PM (Alt 2 w/cross) |
| Command: | Cumulative (2020) + Project PM (Alt 2 w/cross) |
| Volume: | Cumulative (2020) + Project (Alt 2 w/cross PM) |
| Geometry: | General Plan Build-Out |
| Impact Fee: | Default Impact Fee |
| Trip Generation: | None |
| Trip Distribution: | None |
| Paths: | Default Path |
| Routes: | Default Route |
| Configuration: | Existing |

Huntington Beach Traffic Impact Analysis
Cumulative (2020) + Project PM Alt 2 with cross traffic

Impact Analysis Report
Level Of Service

| Intersection | Base LOS | Base Del/ Veh | Base V/ C | Future LOS | Future Del/ Veh | Future V/ C | Change in V/C |
|---|---|---|---|---|---|---|---|
| # 5 Pacific Coast Hwy / 9th St | B | xxxxx | 0.672 | B | xxxxx | 0.672 | + 0.000 |
| # 6 Pacific Coast Hwy / 6th St | F | xxxxx | 1.021 | F | xxxxx | 1.021 | + 0.000 |
| # 7 Pacific Coast Hwy / Main St | B | xxxxx | 0.640 | B | xxxxx | 0.640 | + 0.000 |
| # 8 Pacific Coast Hwy / 1st St | F | xxxxx | 1.151 | F | xxxxx | 1.151 | + 0.000 |
| # 9 Pacific Coast Hwy / Huntington | C | xxxxx | 0.768 | C | xxxxx | 0.768 | + 0.000 |
| # 16 Main St / Adams Ave | C | xxxxx | 0.762 | C | xxxxx | 0.762 | + 0.000 |
| # 19 Main St / 6th St | A | xxxxx | 0.468 | A | xxxxx | 0.468 | + 0.000 |
| # 22 1st St / Orange Ave & Atlanta | A | xxxxx | 0.500 | A | xxxxx | 0.500 | + 0.000 |
| # 24 Beach Blvd / Pacific View Ave | A | xxxxx | 0.397 | A | xxxxx | 0.397 | + 0.000 |